

## **SECTION 02240**

### **PROTECTIVE AND CONTOURING LAYERS**

#### **PART 1 GENERAL**

##### **1.01 SCOPE**

- A. This Section includes protective layer and contouring layer products and placement.

##### **1.02 RELATED SECTIONS AND PLANS**

- A. Section 02100 - Surveying
- B. Section 02200 - Earthwork
- C. Section 02710 - Granular Drainage Material
- D. Section 02714 - Geotextiles
- E. Section 13010 - Impacted Material Placement
- F. Impacted Materials Placement Plan, Revision 1, October 1997
- G. Part 6 - Statement of Work
- H. Part 8 - Environmental Health and Safety, Training Requirements
- I. Part 9 - Quality Assurance Requirements

##### **1.03 HEALTH AND SAFETY REQUIREMENTS**

- A. Environmental, health and safety, and other training requirements shall be as specified in Part 8 of the Contract Documents.

## **1.04 SUBMITTALS**

- A. Include a list of equipment and a description of construction methods to be used for protective and contouring layer construction in the Earthwork Work Plan specified in Section 02200.

## **PART 2 PRODUCTS**

### **2.01 MATERIALS**

- A. Materials for the contouring layer, protective layer, excluding granular protective layer, unless otherwise indicated on the Construction Drawings, shall be Category 1 as specified in the Impacted Material Placement Plan. Category 1 shall be soil and soil-like materials including till or ash from the Fernald Environmental Management Project (FEMP) Site. Category 1 shall have 100 percent of particles finer than 3 inch. Written approval from the Construction Manager shall be required to use non-impacted till from the OSDF excavation, stockpiles, or on-site borrow area if impacted material is not available.
- B. Obtain material for the protective layer and contouring layer from the east and west impacted material stockpiles and active flyash pile as indicated on the Construction Drawings.
- C. Granular protective layer in the Impacted Runoff Catchment Area shall meet the requirements for leachate collection system granular drainage layer material specified in Section 02710.

### **2.02 EQUIPMENT**

- A. Furnish equipment required to haul, place, spread and compact protective and contouring layers including granular protective layer.

## **PART 3 EXECUTION**

### **3.01 PLACEMENT**

- A. Construct the protective and contouring layers to the thicknesses, elevations, and limits shown on the Construction Drawings.

- B. Place the protective layer including granular protective layer above geotextile filter as shown on the Construction Drawings. Place and spread the protective layer in accordance with the requirements of Section 02714.
- C. Do not use equipment to place, spread, or compact the protective layer that produces ground pressures on the underlying geotextile that exceed the requirements of Section 02714.
- D. Remove rock particles in the protective and contouring layers with a maximum dimension larger than 3 inches.
- E. Compact the protective and contouring layers in accordance with the performance requirements of Section 13010.
- F. Scarification, compaction, moisture conditioning, inclement weather work, and seal rolling for the contouring layer shall be as specified for the "compacted fill" in Section 02200.
- G. Dust control shall be in accordance with Part 6 of the Contract Documents.

### **3.02 EQUIPMENT DECONTAMINATION**

- A. Decontaminate equipment used to place impacted protective layer and contouring layer materials in accordance with Section 13010.

### **3.03 CONSTRUCTION QUALITY REQUIREMENTS**

- A. CQC Consultant will perform conformance testing on granular protective layer material to establish compliance with this Section. Conformance testing to be performed and testing frequencies are given in the Construction Quality Assurance (CQA) Plan, referenced in Part 9 of the Contract Documents.
- B. CQC Consultant will perform performance testing on compacted lifts of contouring layer material to establish compliance with this Section. Performance testing to be performed and testing frequencies are given in the quality assurance appendix of the Impacted Material Placement Plan.

### **3.04 SURVEY CONTROL**

- A. Survey the limits and elevations of the protective layer and the contouring layer in accordance with Section 02100 of these Specifications.

### **3.05 CONSTRUCTION TOLERANCES**

- A. Construct the protective and contouring layers to within 0.0 to +0.1 feet of the thickness shown on the Construction Drawings.
- B. Construct the protective layer to within -0.1 to +0.2 feet of the elevations indicated on the Construction Drawings.
- C. Construct the contouring layer to within  $\pm 0.2$  feet of the elevations indicated on the Construction Drawings.

[END OF SECTION]